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REPORT BY THE U.S.

# General Accounting Office

## Federal Energy Regulatory Commission Needs To Act On The Construction-Work- In-Progress Issue.

The financial indicators of the electric utility industry have deteriorated due to high inflation, high interest rates, accelerating construction costs, decline in demand, and a less than adequate rate of return. This has led to uncertainty about the industry's ability to attract investment capital.

GAO sees the real issues as being whether companies need rate relief to maintain financial integrity, and whether construction programs which depend on such relief are needed to meet future electric energy demands.

GAO recommends that the Commission establish a rulemaking proceeding to define criteria on a case-by-case basis for companies seeking permission to include construction-work-in-progress in their rate base. Such a rulemaking could act as a guide in providing assistance to State public utility commissions facing the same issues.

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SEPTEMBER 23, 1981

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UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

ENERGY AND MINERALS  
DIVISION

B-204667

The Honorable Charles M. Butler, III  
Chairman, Federal Energy Regulatory  
Commission

Dear Mr. Butler:

Over the past few years, GAO has carried out several reviews regarding problems facing the Nation's electric utility industry. For example, we have conducted reviews of utility regulation, demand/supply planning, cancellation and delays of powerplants, and utility research and development. Still, another important issue is the overall financial environment under which the utility industry is presently operating.

Industry representatives point out that the financial indicators of the electric utility industry have deteriorated to a point where there is some uncertainty about the industry's capability to attract the capital necessary to complete ongoing and planned construction programs. The industry's poor financial performance is closely tied to inflation and high interest rates and is compounded by (1) the burden of carrying the costs for financing large powerplants which may not become operational for 10 to 12 years, (2) earnings based on older operating plants which cost much less to build than today's powerplants, and (3) unanticipated energy conservation which has led to less consumption without any significant decreases in construction programs.

The Edison Electric Institute (EEI) has proposed that the Federal Government provide financial relief through the Federal Energy Regulatory Commission (FERC) by setting an example and encouraging State regulatory bodies to consider such measures as

- allowing construction-work-in-progress (CWIP) in the rate base,
- encouraging ratemaking policies to facilitate financing of desirable utility innovations, and

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--allowing higher rates of depreciation. 1/

While the bulk of electric utility revenue (about 88 percent) comes under the regulatory jurisdiction of the States' public utility commissions, the other 12 percent is regulated by FERC. Although FERC's jurisdiction is small compared to that of the States, the industry's proposals indicate that FERC's role and actions regarding ratemaking policy can set an example which could be followed and adopted by the State commissions.

The industry's proposals for FERC to allow CWIP in the rate base when setting wholesale interstate power rates would, the industry believes, improve their financial condition because CWIP allows a utility to recover the costs, or a portion of the costs of capital, in building a powerplant as the funds are expended. This would improve a utility's financial condition in the sense that current expenses would be matched with current revenues. FERC's current policy is to limit CWIP in the rate base to those expenditures for pollution control and for conversion of oil or gas-fired facilities to other fossil fuels. From 1977 to mid-1979, FERC has allowed an average annual amount of about \$69.9 million in CWIP for such projects in the rate base. FERC's policy also provides for inclusion of other types of CWIP for utilities suffering a severe financial hardship. As of August 1981, FERC had neither approved any request under the hardship provision nor issued regulations which define severe financial hardship. Our objective in doing this assignment was to determine what FERC's role should be in analyzing and responding to requests for regulatory rate relief through CWIP. We looked at FERC because it

--is the Federal agency responsible for regulating wholesale power rates as set forth in the Federal Power Act,

--has been receiving requests from utilities for rate relief through CWIP, and

--could provide a leadership function to the State regulatory commissions on this issue.

In reviewing FERC's involvement in the CWIP issue, we first wanted to look at the financial condition of the industry. We

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1/The Economic Recovery Tax Act of 1981, (P.L. 97-34), August 13, 1981, (1) provides for accelerated rates of depreciation, (2) liberalizes the 10-percent investment tax credit, and (3) allows a tax incentive for stockholders to reinvest their dividends in utility companies. These three tax changes were made to improve the cash positions of electric utility companies.

accomplished this by reviewing financial indicators of the 100 largest investor-owned utilities and by discussing these indicators with three investment banking firms, a commercial banking company, a pension fund company, and a bond rating company.

We chose the 100 largest investor-owned utilities because most of the information available from the financial community dealt with these companies. Since they generate about 85 percent of the power sold in the United States, we believe this data was sufficient to demonstrate the financial problems faced by the industry. Admittedly, problems which may be peculiar to public-owned utilities or smaller companies would not be reflected here.

In determining FERC's responsibility for reviewing requests for CWIP and criteria used, we assessed whether FERC had carried out recommendations we made in a June 1980 report 1/ which recommended FERC establish a generic rulemaking to define the criteria for companies seeking permission to include CWIP in their rate base. We reviewed in detail the process and criteria FERC used in deciding five separate electric utility requests on CWIP.

During our review, we also contacted FERC, Department of Energy (DOE), Office of Management and Budget (OMB), Edison Electric Institute (EEI), National Electric Reliability Council (NERC), State public utility commissions in four States, and several electric utility companies. These contacts were made to obtain various views on the financial condition of the industry, determine what has contributed to this condition, and assess the role FERC could play in aiding the utility industry.

#### BACKGROUND

Prior to 1973, the electric utility industry was experiencing continuing improvements in generating technology which tended to push down the cost of power and help increase demand. In the process, utilities made good profits and were financially healthy. During this time frame, forecasts projected electricity demand to continue to grow at the historical rate of 7 percent annually. These forecasts led to aggressive construction programs to meet demand. But, the technological improvements associated with more efficient electric generation began to slow down and the Arab Oil Embargo of 1973 caused oil prices to surge and electrical demand growth to drop.

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1/"Construction Work in Progress Issue Needs Improved Regulatory Response for Utilities and Consumers," EMD-80-75, June 23, 1980.

The most current statistics supplied by NERC indicate the Nation's average annual demand growth rate for the period 1981-1990 to be 3.4 percent. However, other demand projections reflect a lower rate of growth than NERC's. For example, the Tennessee Valley Authority--the Nation's largest utility--projects demand growth ranging from 0.4 to 2.4 percent a year through 1990 for its service area. Historically, growth rates have been dropping. Data available from DOE's Energy Information Administration shown in table 1 reflects the growth rates for electric power since 1950. Note the slow growth in rates since 1973. During this same period, industry was projecting construction plans based on growth rates existing before 1973.

Table 1  
Growth Rates for  
Electric Power

<u>Time Period</u>	<u>Growth rates</u>
1950-1959	9.8%
1960-1969	7.3
1970-1973	6.9
1974-1980	2.9

Source: Energy Information Administration's 1980 Annual Report to the Congress; GAO computations.

Observing certain financial indicators tends to reflect the financial difficulties that the electric utility industry is now experiencing. For example, as of April 1981, the common stock for 98 out of 100 of the largest investor-owned utilities was selling below book value 1/ per share. By selling stock below book value, a utility progressively dilutes shareholders' ownership and makes the utility stock a less attractive investment. In addition, in 1970 only 4 percent of the top 100 electric utilities got a BBB bond rating from Standard and Poor's, a bond rating company--the lowest investment grade rating and a level of credit worthiness that many institutional investors avoid. Presently, about 30 percent are rated BBB. Standard and Poor's officials mentioned that over the past 5 years, 24 of the largest investor-owned utilities' bond ratings have been downgraded while only two companies have had their bond ratings uprated.

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1/Book value--amount of money per share that stockholders have already invested in a business, plus retained earnings.

FACTORS CONTRIBUTING TO UTILITIES  
FINANCIAL DIFFICULTIES

Utilities are experiencing financial difficulties for several reasons. These range from high inflation, resulting in skyrocketing construction costs, to problems relating to an inadequate rate of return. Although these financial problems may differ from utility to utility, investment bankers, bond rating companies, and pension fund managers agree the main factor underlying the Nation's electric utility industry's financial condition is high inflation. Other factors they believe have contributed to the problem include excessive regulation, high interest rates, high construction costs, decline in demand, and a less-than-adequate rate of return.

Due to the utility industry's capital intensiveness, inflation has had more of an adverse financial impact on it than it has had on the financial condition of most other industries. For example, powerplants under construction that were expected to cost \$375 per kilowatt of installed capacity just 6 years ago are now costing \$1,250 per kilowatt of installed capacity. Further, high inflation has practically eliminated the electric utilities' traditional form of financing--the 30-year bond. Currently, the industry can only obtain debt financing for 10 years or less at 13-17 percent interest. Under this arrangement, industry must finance a powerplant 3 times instead of just once, since a powerplant has an average useful life of 30 years. In addition to borrowing money to finance present construction programs under these conditions, the industry is also facing the maturation of 30-year bonds which were issued at 2 or 3 percent and will have to be refinanced under current terms.

In a recent report, <sup>1/</sup> we discussed the financial impact that regulation has had on the industry's ability to construct powerplants. Based on estimates by four utilities, the impact of regulatory costs could amount to over \$1.4 billion. These regulations were promulgated by eight different Federal agencies and several State agencies.

It was determined that regulations designed to protect the environment and delays and uncertainties associated with the Nuclear Regulatory Commission's (NRC) regulatory proceedings were the most costly. Environmental concerns have centered around minimizing or eliminating air and water pollution.

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<sup>1/</sup>"The Effects of Regulation on the Electric Utility Industry," EMD-81-35, March 2, 1981.

For the utilities, this has meant complying with regulations requiring the installation of anti-pollution devices, such as, scrubbers for the removal of sulfur and other pollutants, precipitators to remove fly ash, or burning more expensive low-sulfur fuel.

In addition, the financial community believes utilities are not receiving an adequate rate of return to pay for the present cost of money. At present, the average rate of return awarded utilities has been about 11 percent. This is in contrast to the present cost of money of about 13-17 percent. Although some recent rate increases have been in the 13-14 percent range, this level is still below the high cost of money. Many business people believe a rate of return of 20 percent is needed and would go a long way toward improving the industry's financial position.

The following situation illustrates the impact of low rates of return being granted by State public utility commissions (PUC). One utility has averaged about a 9-percent rate of return since 1978 while inflation has averaged about 12 percent during this time frame. Although the company recently requested a rate increase of \$171 million, it was only granted a \$144 million boost. The 11.75 percent rate of return granted the utility was well below the present cost of borrowing money and below the inflation rate the utility had been experiencing.

It must be emphasized that, within this present day financial framework, the financial condition of individual utility companies must be analyzed on a case-by-case basis because each company operates differently. Some utilities have been, and are, in the midst of an aggressive construction program, in order to shift their electrical generation fuel mix away from high priced oil and gas supplies. For example, one utility which is now dependent on oil and gas for 81 percent of its electrical generation has a construction program underway that would reduce its dependence on oil and gas to 44 percent in 1985 and to 30 percent by 1990.

In other cases, and in contrast to lower demand growth rates for the industry as a whole, some utilities are experiencing larger increases in demand due to growth and population shifts. For example, the Sunbelt region, particularly the Southwest, is experiencing growth in population and economic activity which has resulted in the utilities predicting they will have to double the generating capacity over the next 10 years. These expansions are requiring major capital investments.

On the other hand, some utilities have little dependence on oil, have not experienced high growth, and have reduced their



construction program in anticipation of demand declines. One utility, mainly dependent on coal, which also reduced its construction program just after the 1973 embargo when demand dropped finds itself not needing great amounts of capital because little construction is underway. In fact, it only needed to borrow about \$300 million in 1979 and 1980 combined. A utility in this position certainly needs to be viewed differently than the previous examples.

#### ALTERNATIVES TO RATE RELIEF FOR SOLVING THE UTILITY INDUSTRY'S FINANCIAL SITUATION

The utility industry and the financial community believe that rate relief, either through higher rates of return or by allowing CWIP, are remedies to the industry's financial burdens. Yet, it appears that the utilities have some alternatives short of rate relief which could help relieve financial problems. Deciding whether additional power is needed and what supply options to choose have a major impact on a utility's capital needs. <sup>1/</sup> In some cases, State PUC's are helping to guide utilities in making these decisions.

For example, one utility planned to construct a nuclear powerplant based on its demand forecast. But, the State PUC did not approve the utility's request to build the powerplant because (1) it believed the utility's forecast was overstated and (2) the utility may not be able to financially support a large building program. Also, the State PUC suggested the utility look to lower cost alternatives such as conservation to meet its demand.

Some utilities are trying to improve their financial condition and get power on line more quickly by implementing less capital intensive measures such as power pooling, conservation and cogeneration. A west coast utility recently announced plans to reduce its financial obligations by meeting a substantial amount of its future demand through conservation, cogeneration, and/or renewable resources. During the decade of the 80s, the company plans to meet almost 40 percent of its supply requirements through these sources. By implementing this strategy, the company's percent of total capitalization is projected to decrease from 12.5 percent in 1981 to 7 percent by 1985 which would place the company in a much healthier financial position.

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<sup>1/</sup>GAO report concerning this area, "Electricity Planning-- Today's Improvements Can Alter Tomorrow's Investment Decisions," EMD-80-112, September 30, 1980.

NEED FOR FERC TO ESTABLISH RULES FOR  
CWIP AND TO PROVIDE A LEADERSHIP ROLE  
IN AIDING THE INDUSTRY

Since November 1976, FERC policy permitted a utility to include CWIP in its rate base if it is related to (1) certain pollution control facilities, (2) certain fuel conversion facilities, or (3) other facilities, if the utility can show, among other things, "severe financial difficulty which cannot otherwise be alleviated without materially increasing the cost of electricity to consumers." FERC has allowed inclusion of CWIP under the first two circumstances, but as of August 1981 no utility has been successful in getting CWIP in its rate base under the severe financial difficulty category.

Seven CWIP cases have been presented before FERC under the financial hardship criterion. Two of these cases are in the initial review stages. In three of the cases, rate agreements were obtained without ruling on CWIP and in the other two cases CWIP was denied in the rate base. In the first case, the administrative law judge recommended against CWIP because rate relief already provided by the State had sufficiently improved the company's financial condition. In the other case, the administrative law judge concluded that the company had overstated its financial need and had not explored other financing alternatives. In arriving at this decision, FERC examined the utility's demand forecast, supply options, and financial data. Although FERC used this procedure, it does not have written procedures or criteria to assure that this process will be considered in every case. Further, FERC officials point out they are limited in their ability to analyze the above factors. To fully evaluate these factors, computer capability would be a major asset. However, FERC does not have a computer model to analyze these factors. By not having this capability, FERC is not only placed in a difficult position to rule on CWIP requests, but it also is not in a good position to advise the Federal Government on whether the industry is really in financial trouble and needs assistance. Conversely, by possessing these skills, FERC would be in a position to not only rule on CWIP requests but also be in a position to analyze the overall condition of the industry and aid State PUCs in handling similar questions.

We found, however, that a financial model being developed within DOE's Energy Information Administration (EIA) could be adapted to provide FERC the assistance it needs. The model analyzes the demand forecast, supply mix strategy, and the financial status of the electric utility industry in the

aggregate by region. Although the model does not perform analysis on an individual company basis, EIA officials said that with some customizing the model could be adapted to do so. At the present time, no effort is underway to customize the model and EIA has not coordinated its effort with FERC.

#### Recent proposal

FERC recently issued for comment a proposal which, for the first time, offers financial criteria for determining whether a utility is financially weak enough to merit putting CWIP into its wholesale rate base. The proposal would permit a utility to include in its rate base a portion of CWIP if (1) the utility had its bonds rated no higher than Baa by Moody's or BBB by Standard and Poor's; and (2) the amount of CWIP under FERC's jurisdiction which is excluded from the utility's wholesale rate base exceeds 40 percent of that rate base.

Although this is a step in trying to develop a generic rule-making for CWIP, we believe the criteria offered in its proposal is not the major criteria FERC should consider in analyzing whether CWIP is necessary in a company's wholesale rate base. We further question whether this criteria should be considered at all. We believe the use of a bond rating company's evaluation should not replace this independent analysis because the objectives in setting bond ratings may not be compatible with the objectives of regulation. As mentioned above, FERC needs to have the independent capability to expeditiously analyze a company's demand/supply forecast and financial situation on a case-by-case basis.

#### CONCLUSIONS AND RECOMMENDATIONS

The financial indicators of the electric utility industry have deteriorated to a point where there is some uncertainty about the industry's capability to attract the capital necessary to complete ongoing and planned construction programs. For example, as of April 1981, the common stock for 98 out of 100 of the largest investor-owned utilities was selling below book value.

The utility industry, along with the financial community, agree that the main factor underlying the Nation's electric utility industry's financial woes is high inflation. Other factors they believe have contributed to the problem are excessive regulation, high interest rates, high construction costs, decline in demand, and a less than adequate rate of return.

But the degree of these problems must be viewed on a case-by-case basis. Heavy dependence on oil or natural gas

for electricity generation or a utility situated in a high growth area could equate into a heavy construction program and financial difficulties; whereas, utilities located in sections of the Nation where coal is the prime electrical fuel source and economic growth is slower may not find their financial condition quite as bad.

There are differing views to the extent of these problems and how they should be solved. Industry and the financial community have proposed immediate rate relief options--while some State PUC's believe more can be done through improved load forecasting, conservation, load management, and use of alternative resources. In fact, some companies have vigorously adopted some of these methods in order to alleviate their financial burdens.

In a previous GAO report, we recommended FERC establish a generic rulemaking to define the guidelines as to what financial conditions would justify allowing CWIP in the rate base. As of August 1981, it has not done so, although it recently issued for comment a proposal outlining financial criteria which could be used for allowing CWIP in the rate base.

Along with the criteria which is eventually developed, FERC should have the independent capability to expeditiously analyze a company's demand/supply forecast and financial situation. A financial model currently being developed by EIA could be adapted to provide FERC the assistance it needs.

In order for the Federal Government to lend assistance in helping those electric utility companies that may have financial problems, we recommend that the Chairman, FERC:

- Develop a generic rulemaking for CWIP which better defines financial hardship criteria that can be applied to a utility seeking regulatory rate relief. This criteria should address how to take into consideration on a case-by-case basis a utility's current generation mix, such as, how dependent a company is on oil and gas; an analysis of a utility's demand forecast to verify that capacity expansion is, in fact, necessary; and an analysis of whether the utility is following least-cost supply options.

- Pursue with DOE the customizing of the EIA model to use in analyzing CWIP requests.

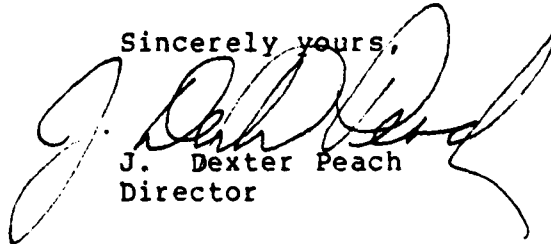
FERC's development of criteria and use of the model could also provide a useful and potential leadership role in aiding State PUC's facing the same issues.

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As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report. We would appreciate receiving a copy of your statement when it is provided to the congressional committees and being informed of any action taken on our recommendations.

We are sending copies of this report to the Director, Office of Management and Budget; and the House and Senate committees having oversight and appropriation responsibilities over FERC.

Sincerely yours,

A large, stylized handwritten signature in dark ink, appearing to read 'J. Dexter Peach', is written over the typed name and title.

J. Dexter Peach  
Director

